Mold Temperature Controller

Manufacturer Instruction Manual

Dongguan Dingyuan Industry CO,.Ltd

Tel: +86-(0)769-83503283 **Fax:** +86-(0)769-83984962

Email: info@dgdinyuan.com **Website:** www.dgdinyuan.com

Address: Building B First Floor No.3 Xinglong 2nd Road Xiaxu Village Changping Town

Dongguan City Guangdong, China

Table of contents

1 Instructions

Dear Customer:

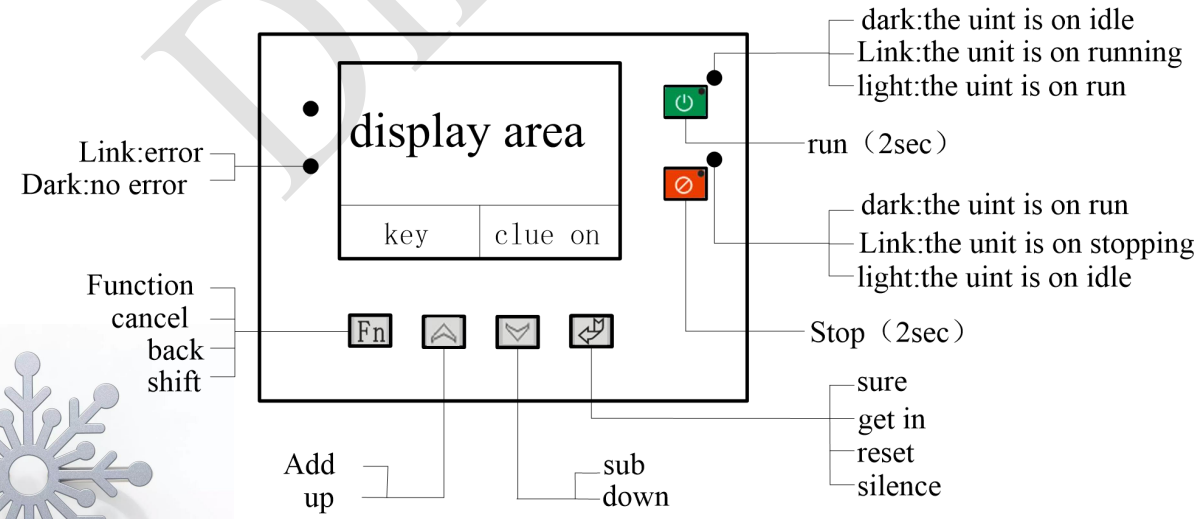
Thank you for choosing our products!

For your convenience, please read the instructions carefully and follow the steps of the Manual.

2 Specifications

No.	Specification Parameter	Description	No.	Specification Parameter	Description
1	Power Supply	220-240 VAC 50/60HZ	6	Switch Output	5 relays 250VAC 2A
2	Temperature Range	-30~500℃	7	Load type	JP3_6：alertor JP3_2~ JP3_5：contacts/valve
3	Measurement Accuracy	0.05℃/K	8	Switch Input	4 passive signal inputs
4	Working Environment	-10℃~60℃, ≤85%RH non-condensation	9	Analog Input	2 ways of K-type thermocouple or PT100
5	Storage Environment	-20℃~70℃, ≤85%RH non-condensation	10	Current Input	1 ways of current

3 Panel Diagram



4 First Power-on

When the controller is powered on for the first time, the configuration wizard screen will pop up, which can be used normally when configured. Please refer to 11.4 Configuration Wizard for the specific operation.

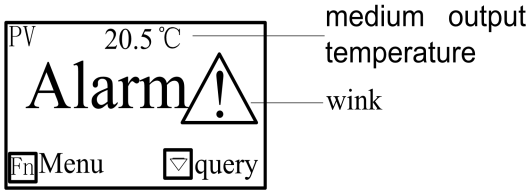
5 Common Screens

5.1 Main Screen

The system will enter the main screen after countdown, which displays as follows:

5.2 Alarm Screen

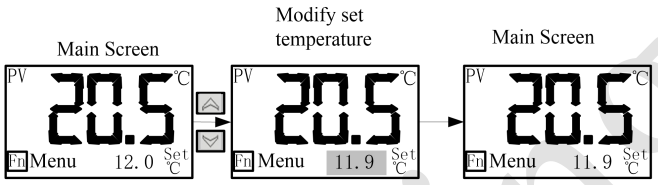
In case of unit failure, the alarm screen is as follows:



6 Common Operation

6.1 Quick Modification of Setting Temperature

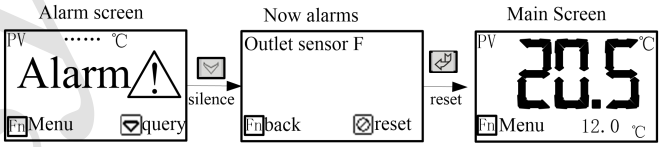
If the user parameter [locked temperature] is set to "No", the setting temperature can be modified directly in the main screen, with operation details as follows:



Note: the setting temperature can also be modified in the user parameters.

6.2 Query/Reset Fault

In case of fault, the alarm screen will automatically pop up. The operation details of query and reset faults are as follows:



7 User Menu

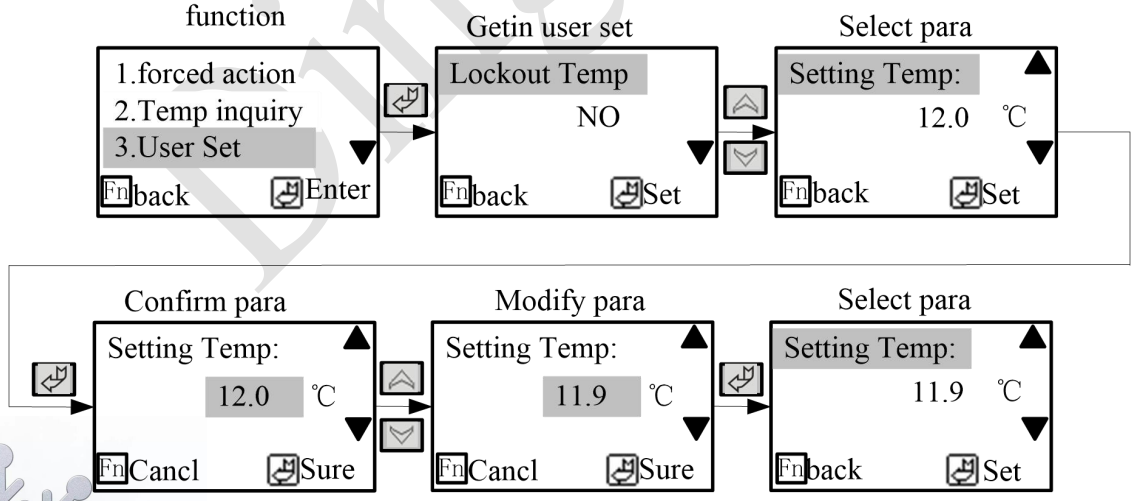
Press **<Function>** inn the main screen to enter the user menu, which has parameters as follows:

No.	Parameter Item	Parameter Function	Remark
1	Forced Action	Forced cooling.	Forced cooling: manually forced cooling of the unit can be achieved in the running state
2	Temp inquiry	To query medium output temperature and medium backflow temperature, circulation pump current， output state ,input state .	The medium backflow temperature is not displayed when there is no medium backflow probe and the pump current is not displayed when there is no current detection.
3	User Set	To set the parameters commonly used by the user	Refer to 9 User Parameters Table for the number of user parameters.
4	Alarm History	To query the last 10 faults occurred	Press <Confirm> button for 2s to clear the fault history.

5	Time function	Current time Programmed on/off Programmed 1 …… Programmed 6	Current time: to query/modify the current time. Programmed on/off: to enable or stop the programmed function Programmed 1: programmed setting 1 …… Programmed 6: programmed setting 6
6	Maintenance	To query the total running time of the unit The total number of electric heating output The total number of cooling output Oil time	The oil time is not displayed in non-oil machine.
7	Utiliza rate	Equipment utilization rate Total power-on time Actual operation time Accumulative fault time	To display the time recording of the unit
8	Version	To query the current software version	

8 User Parameter Operation

For the modification operation of parameter value, the user's modification of setting temperature will be described as an example. (Select "No" for [locked temperature]).



9 User Parameters Table

User-set parameters and their meanings are listed in the following table:

No.	Parameter Name	Factory Default	Setting Range	Remark
1	Lockout Temp	No	Yes ~ No	Yes: the setting temperature can be quickly changed in the main screen.

				No: the setting temperature cannot be quickly changed in the main screen.
2	Setting Temp	80.0℃	-30.0~400.0℃	The setting range is limited by the minimum and maximum setting temperature of manufacturer parameters.
		176.0℉	-22.0~752.0℉	
3	Start-Stop Mode	Local	Local / Local + Remote / Remote	Local: the start and stop of the unit can only be controlled locally. Local + Remote: the start and stop of the unit can be controlled both locally and remotely. Remote: the start and stop of the unit can only be controlled remotely.
4	Backlight Off	0 minute	0~255 minute(s)	The backlight is normally on when set as 0; when set as non-zero, the controller backlight is off if the controller is not operated after the set value is reached.
5	Multi-Lang uage	English	中文~English	Select Language type

10. Engineering Menu

In the main screen, press the button for 3 seconds to enter the password entry screen and enter the correct engineering password (The default value is 4561, which is recommended to change. Refer to the password entry method in the manufacturer menu screen for password entry method.). Then enter the engineering function menu, which contains two items.

Engineering Parameters Table

	Parameter Name	Initial Value	Setting Range	Unit	Remark
PID info	Start AT	Disabled	Disabled / Use		Enable or disable auto-tuning
	Control Ar	15	1~30		Regulate PID control response
	Heat Scale P	8.0	0.1~200.0℃	℃	
		14.4	0.2~360.0	℉	
	Cool Scale PC	3.0	0.1~20.0		Multiples of heating proportional band
	Integral Ti	100	1~3600	Sec	
	Differential Td	12	0~3600	Sec	
	Heat cycle T	20	1~300	Sec	Cycle of electric heating output function
	Cool cycle TC	20	1~300	Sec	Cycle of cooling valve output function
	Overlap db	0.0	-30.0~30.0		For hot water machines, db is generally set as a positive (for example, 0.5 ℃)
Operate Info	Run Pump Dy	0	0~250	Second	Start Pump delay

	Remove Air Time	30	0~250	Second	In the preparation stage of operation, the time of opening the pump to discharge the air in the unit. Water shortage is not detected during this period.
	Up Press Cycle	0	0~250	Second	If [Up Press Cycle] is set as 0, it is disabled. For pressure relief of water temperature machine in warming period.
	Hold Pres Cycle	0	0~100	Minute	[Hold Pres Cycle] is set as 0, it is disabled. For pressure relief of water temperature machine in warming period.
	Shutdown Temp	60.0	0.0~350.0	℃	When the unit is shut down, open the cooling valve. With the timing of 5 seconds, close the cooling valve and the pump, and then shut down until the media temperature < [Shutdown Temp]. [Shutdown Temp] = 0, the shutdown is not subject to temperature limits.
		140.0	32.0~662.0	°F	
	Cooling limit	60	0~60	Minute	1: forced cooling operation time. When set to 0, the unit forces cooling and stops until the media temperature < [cooling temperature in shutdown].
	Clean media TM	60	1~600	Second	Mold cleaning time, which will not be displayed until the mold cleaning valve is defined.
	PressH Dly	0.0	0.0~300.0	Second	The maximum is limited by the [PressH Err Dly].
Alarm Info	Pump rated cur	0.1	0~25.0	A	Pump rated current value.
	Pump Cur Repair	0.0	-10.0~10.0	A	Current repair value.
	Power On CLWD	120	1~255	Second	When you first turn on the unit, begin to detect the low water level failure after that delay time. Oil temperature machine has no such parameter.
	Add Water Freq	0	0~999	Minu	If [Add Water Freq] is set as 0, it is disabled. Oil temperature machine has no such parameter. Only work on When the PV is higher than the set [A Temp L Limit],

	Heat Time Limit	10	0~999	minu	= 0, the heating time limit detection is not used. Please set according to the actual heating efficiency of the unit.
	Cool Time Limit	10	0~999	minu	= 0, the cooling time limit detection is not used. Please set according to the actual cooling efficiency of the unit.
	Temp Over Alarm	30.0	0.0~100.0	℃	PV－[SV]> [Temp Over Alarm], it is delayed 10seconds and reported as Temp High PV－[SV]< [Temp Over Alarm], the fault is automatically reset.
		54.0	0.0~180.0	℉	
	Temp Low Alarm	30.0	0.0~100.0	℃	[SV]－PV >[Temp Low Alarm] , it is delayed 10 seconds and reported as Temp Low [SV]－PV <[Temp Low Alarm] , the fault is automatically reset.
		54.0	0.0~180.0	℉	
	PressH Err Dly	10	0~300	Second	The parameter is only available in oil temperature machine. If the effective signal of system press high input lasts for 【PressH Dly】 seconds,the machine would shut dowm and reported as Sys Press High. The function is disabled when【PressH Dly】= 0.
	Temp Diff Alarm	10	0~50.0	℃	|medium output temperature – medium backflow temperature| > [Temp Diff Alarm], and it is delayed [Temp Delay] seconds, the alarm of too large medium output and backflow is given. The function is disabled when [Temp Diff Alarm]= 0.
		18.0	0.0~90.0	℉	
	Temp Delay	60	0~250	Sec	
	phase detection	Use	Disabled/Use		Whether to use on-board three-phase power detection
	Media Less Dly	120	1~255	Second	During operation, if the lack of media [Media Less Dly]+[PumpStop For LW] continues, it will give an alarm of Media Lack. Oil temperature machine has no such parameter.
	First Temp High	40.0	0.0~100.0	℃	PV－【SV】>【First Temp High】, it is delayed 2seconds and reported as “First Temp High” PV－【SV】<【First Temp High】, the fault is automatically reset.
		72.0	0.0~180.0	℉	

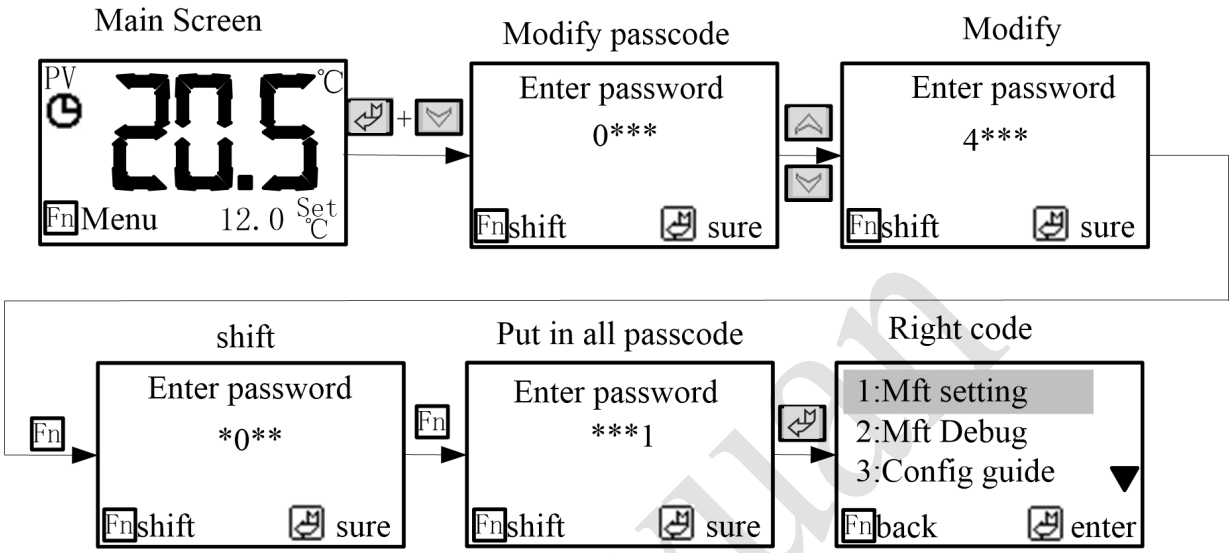
	First Temp Low	40.0	0.0~100.0	℃	【SV】－PV >【First Temp Low】, it is delayed 2seconds and reported as "First Temp Low"，【SV】－PV <【First Temp Low】, the fault is automatically reset.
		72.0	0.0~180.0	℉	
Assist Info	Temp Unit	℃	℃~℉		℃：The temperature unit is ℃。 ℉：The temperature unit is ℉。
	Display temp	0.1	0.1 ℃/1 ℃		The main screen displays the smallest unit of temperature.
	Heat Output Max	100	0~100	%	Maximum electric heating output
	Outlet Repair	0.0	-30.0~30.0	℃	Compensation for the measurement error of medium output temperature
		0.0	-54.0~54.0	℉	
	Inlet Repair	0.0	-30.0~30.0	℃	Compensation for the measurement error of medium backflow temperature
		0.0	-54.0~54.0	℉	
	Cool Output Opt:	J35+J36 output	Three options in total, see the Remarks		J35 output: cooling valve is J35 output. J36output: cooling valve is J36 output. J35 + J36 output: cooling valve output is J35 and J36 polling output. J36 output: defined as non-cooling valve, the parameter is hidden in case of 2.
Maint Info	Oil Time Limit	~	0~9999	Hour	=0 disabled, replace the oil use prompt. The maximum oil time (the parameter is only available in oil temperature machine).
	Oil Total Time	0	0~9999	Hour	Actual oil time(the parameter is only available in oil temperature machine).
	Oil Total Time	0	0~9999	Minute	
	Heater Maint(H)	0	0~9999	hundred	=0 disabled, replace the heating contactor prompt. The maximum electric heating output frequency(hundred)

	Heat Output(TT)	~	0~9999	Ten thousand	Accumulative actual output frequency of electric heating
	Heat Output	~	0~9999	One	
	Cooler Maint(H)	0	0~9999	hundred	=0 disabled, replace the cooling contactor prompt. The maximum cooling valve output frequency
	Cool Output(TT)	~	0~9999	Ten thousand	Accumulative actual output frequency of cooling valve
	Cool Output	~	0~9999	One	
	Power On Hours	~	0~9999	Hour	Total powered-on time of the unit
	Power On Hours	~	0~60	Minute	
	Actual run time	~	0~9999	Hour	Accumulative operation time of the unit
	Actual run time	~	0~60	Minute	
	Failure Time	~	0~9999	Hour	Accumulative fault time of the unit
	Failure Time	~	0~60	Minute	

11 Manufacturer Menu

Press + in the main screen and enter the Password Entry screen to enter the correct manufacturer password (default 4561, which is recommended to change). Then enter the Manufacturer Function Menu, which includes five items.

11.1 Procedures of Entering Manufacturer Menu



11.2 Details of Manufacturer Menu

The details and function of manufacturer menu are shown in the following table:

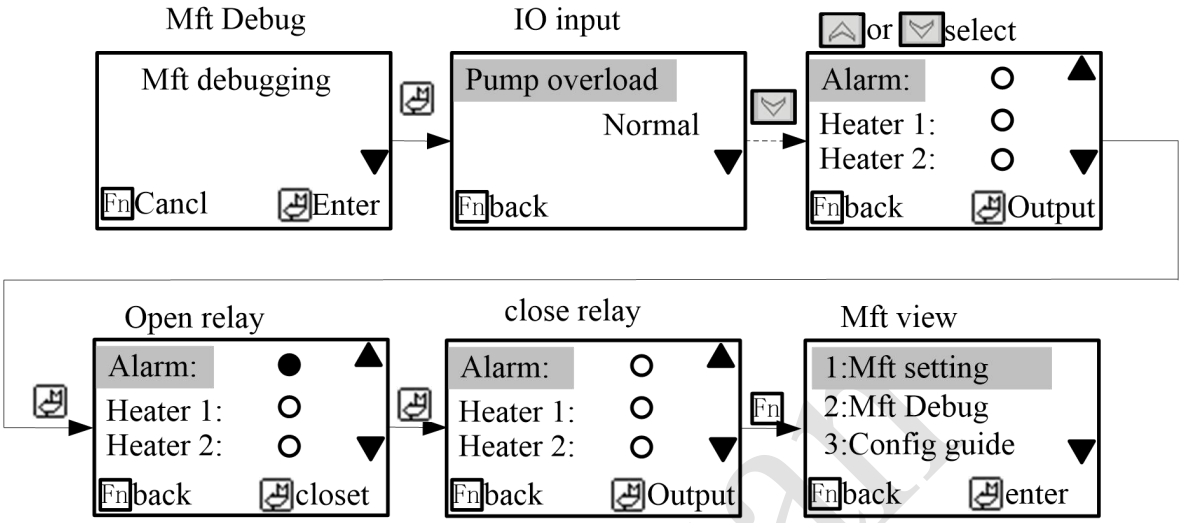
No.	Parameter Item	Parameter Function	Remark s
1	Mft setting	To set the parameters commonly used by the manufacturer	Refer to 11.5 Manufacture Parameters for specific parameters. (parameters setting can be achieved in shutdown mode).
2	Mft Debug	To debug the abnormal operation of each electrical part of the unit	Not available during the unit operation.
3	Config guide	For configuration of commonly used parameters of the machine	Not available during the unit operation. The screen will pop up when powered on for the first time.
4	Initialize	To restore user parameters to the factory default values	Refer to 11.5 Manufacture Parameters for the initial values of the parameters.
5	Mft password	To set the password of entering manufacturer menu	The default value is 4561, which is recommended to change.

11.3 Manufacturer Debugging

Manufacturer debugging is mainly used to test whether the operation of each electrical part of the unit is normal, which is not available when the unit is under operation.

Method: to determine whether the unit is normal by testing three-phase power input, switch input and relay output.

For alarm input, it only displays the test result. If the result is normal the wiring is good and parameter settings are correct; if it alarms, with flashing display of alarm characters, then make sure whether the external wiring is good and the parameter settings are consistent.

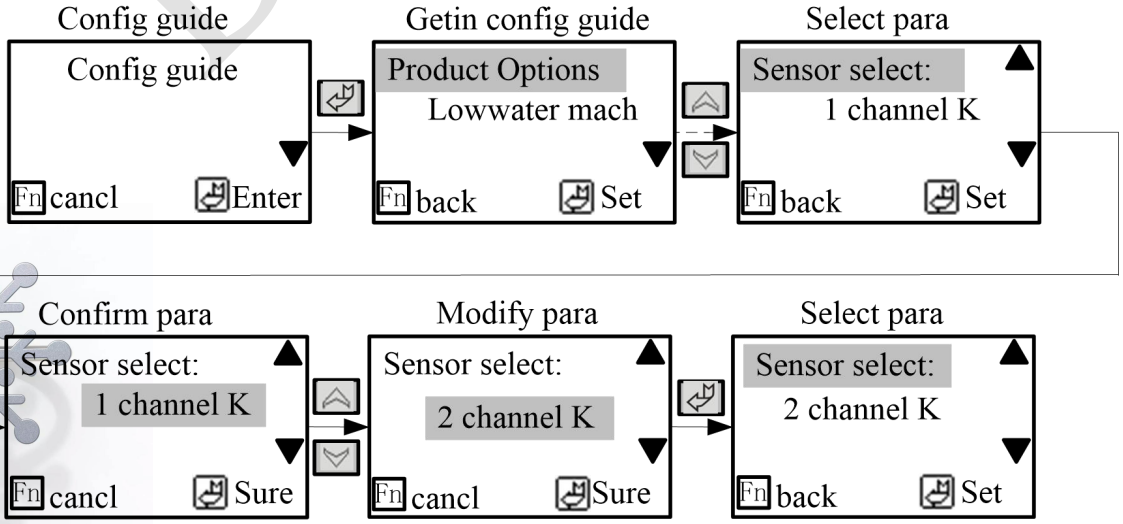


11.4 Configuration Wizard

Configuration Wizard completes the configuration of the commonly used parameters by the machine, which is not available when the unit is under operation.

For the number and implication of parameters of the Configuration Wizard, please refer to the Manufacturer Parameters Table and to Parameter Operation for specific configuration method.

The Configuration Wizard screen will pop up when powered on for the first time. And if you click “Cancel” operation without configuring at this point, the Configuration Wizard screen will still pop up when powered on next time. Once you have entered the Configuration Wizard, the Configuration Wizard screen will not pop up when powered on and you can only enter the Configuration Wizard through the Manufacturer Menu.



11.5 Manufacturer Parameters Table

The parameters set by the manufacturer and their implications are listed in the following table: (The items with "*" are configuration wizard parameters.)

Parameter	Factory Value	Setting Range	Unit	Remarks
Product Options	LowWater Mach	See the Remarks		LowWater Mach Oil Mach
Sensor select	1-way K	1~2 way of K		Select the number of temperature probes.
Stability	0.0	0.0~1.0	℃	This parameter is generally not changed.
	0.0	0.0~1.8	℉	
JP35 Output Def	Booster	cooling valve 2/cleanvalve/Overheat Output		Please set according to the unit conditions.
Pump Overload	Normally open	normal open ~ normal closed		Switch normal open ~ normal closed settings
Overheat	Normally open			
Low Level	Normally open			
Pressure low	Normally open			
Press low deal	Manual reset	manual reset ~ automatic reset		If [processing of low inlet water pressure]= manual reset, the fault of low inlet water pressure needs to be manually reset. If [processing of low inlet water pressure]= automatic reset, there is fault memory in case of fault of low inlet water pressure. When the unit is under operation, it is automatically reset. After the fault is reset, the unit operates in the state before fault.

Set Temp Max	120.0	-30.0~400	℃	The maximum setting temperature. Low-temperature water machine: max 150.0℃ Hot water machine: max 250.0℃ oil machine: max 400.0℃
	248.0	-22.0~752.0	℉	
Set Temp Min	10.0	-30.0~400	℃	The minimum setting temperature.
	50.0	-22.0~752.0	℉	
Alarm Output:	Keep when mute	Keep when mute ~ Stop when mute		Keep when mute：Stop output when silence Stop when mute：keep output when silence
* Alarm Type	Normal open	normal open ~ NC		Alarm output type
J5_6 define	Low press	Low press ~ system press		Please set according to the unit conditions.
*Boot Screen Sel	Mold Temperature	Mold Temperature~ Temperature		Display content selection of power on countdown screen.
J5_5 define	Low Level	Low Level ~ system press high		Please set according to the unit conditions.

12 Fault List

Fault Name	Operation
Phase Alarm	1. In case of an alarm, the machine stops. After the fault is eliminated, it is manually reset. 2. **Methods of detection:** ➢ **Onboard phase sequence module**: detection starts when powered on. Anti-phase is alarmed with a delay of 1.2 seconds and default phase with a delay of 3 seconds. If you want to disable the onboard phase sequence module, set the manufacturer parameter [three-phase electrical detection] to "Disabled."
Media Lack	➢ 1. In case of an alarm, the machine stops. After the fault is eliminated, **Water temperature machine** is manually reset. **Oil temperature machine** is auto reset**.** ➢ 2. **Methods of detection:** ➢ **Water level switch input** JP5_5 (default normal open). ➢ **Water temperature machine** (1) When the unit is in operation ready state, if the time of complementing the media exceeds [insufficient media delay] after the time of [start detection of low level], this alarm occurs. (If the mold is relatively large, the value of [insufficient media delay] may be appropriately increased.) (2) When the unit is in operation state, if lack of media continues for [insufficient media delay] + 5 seconds, the alarm occurs. (3) Water temperature machine, if the water is supplied for continuous three times within the minutes of [water supply frequency detection], the alarm occurs. ➢ **Oil temperature machine** Detection starts when powered on, and the alarm is delayed 2 seconds. If you want to disable this detection method, do not connect the switch JP5_5 terminal.

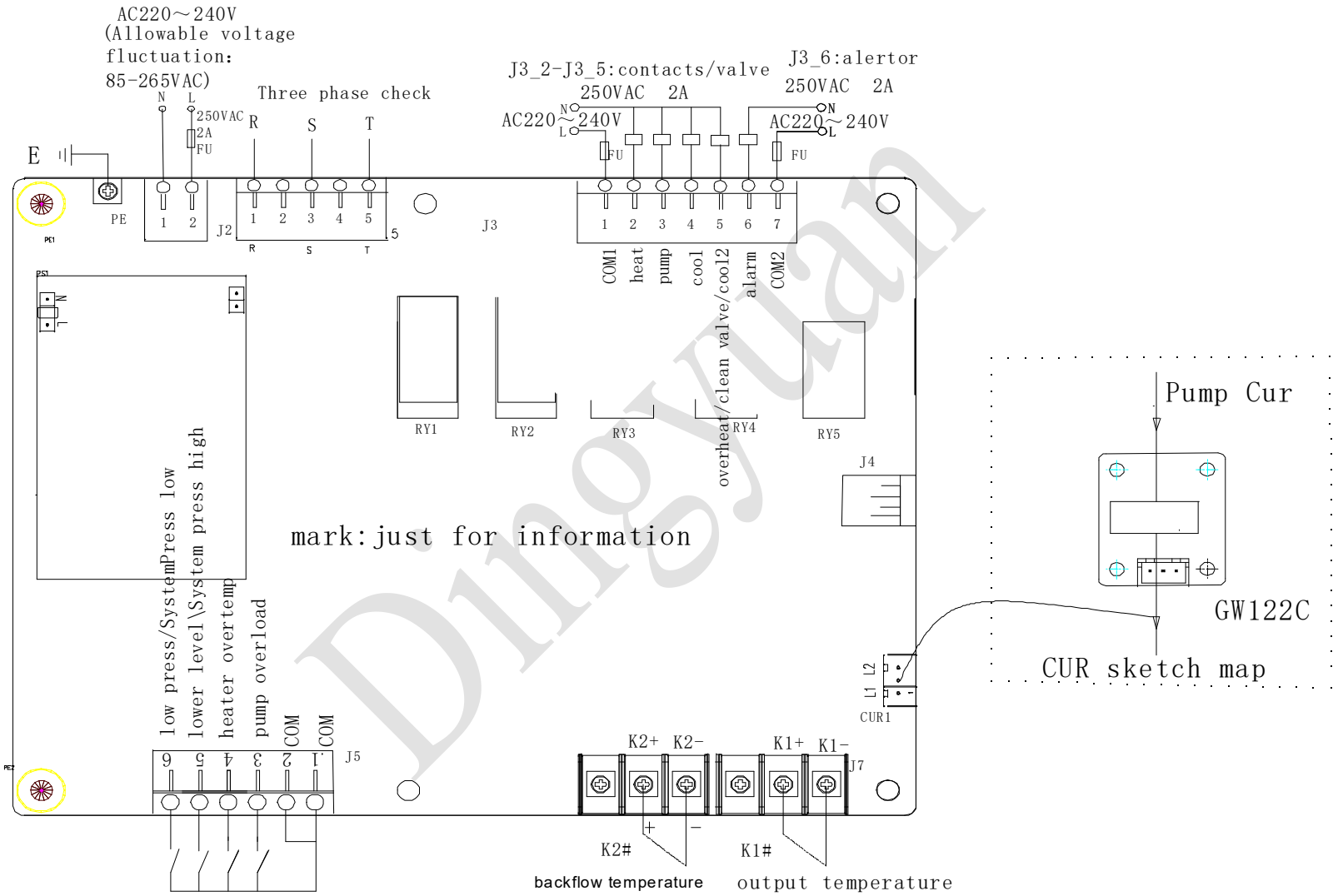
Pump overload	1. In case of an alarm, the machine stops. After the fault is eliminated, it is manually reset. 2. **There are two methods of detection. You can either choose one of them or use the two at the same time:** ➢ **Pump overload switch input JP5_3 (default normal closed t):** Detection starts when powered on, and the alarm is delayed 2 seconds. ➢ **Onboard current module:** When the pump is turned on, detect the pump current according to the inverse time lag. If you want to disable the onboard current module, simply set the [Pump rated cur] = 0.
Overheat	1. In case of an alarm, the heating stops and the cooling is forced to open; the machine continues to run. When the heater over-temperature signal is normal, cooling PID control is restored. After the fault is eliminated, it is manually reset. 2. **Detection method:** electric heater over-temperature switch input JP5_4 (default normal closed): Detection starts when powered on, and the alarm is delayed 2 seconds.
Outlet Sensor F	1. In case of an alarm, the machine stops. After the fault is eliminated, it is manually reset. 2. Detection starts when powered on, and the alarm is delayed 2 seconds. 3. This fault cannot be disabled.
Temp High	1. In case of an alarm, the heating stops and the cooling is open; the machine continues to run. It is automatically reset after the temperature is normal. 2. Detection in the unit operation state: (1) [PV] - [SV]> [Temp Over Alarm] and alarm delayed 10 seconds, when the temperature is down, it is automatically reset. If you want to disable it, set the [Temp Over Alarm] = 0. (2) In modification of the setting temperature, or when the unit just starts running, if the temperature difference exceeds [Temp Over Alarm], no alarm is given. The alarm is given only when the conditions listed in paragraph (1) is still satisfied after the current temperature shocks up and down several times at the set temperature point.

Temp Low	1. In case of an alarm, the cooling stops and the cooling is open; the machine continues to run. It is automatically reset after the temperature is normal. 2. Detection in the unit operation state: (1) [SV] - [PV]> [Temp Low Alarm] and alarm delayed 10 seconds, when the temperature is up, it is automatically reset. If you want to disable it, set the [Temp Low Alarm] = 0. (2) In modification of the setting temperature, or when the unit just starts running, if the temperature difference exceeds [Temp Low Alarm], no alarm is given. The alarm is given only when the conditions listed in paragraph (1) is still satisfied after the current temperature shocks up and down several times at the set temperature point.
Data Error	1. In case of an alarm, the machine cannot operate and the fault cannot be reset. If the alarm still occurs after trying again with power on, you need to have the machine repaired 2. Detection starts when powered on.
Temp Diff High	1. In case of an alarm, the machine runs normally. After the fault is eliminated, it is manually reset. 2. Detection in the unit operation state: (1)|medium output temperature – medium backflow temperature| > [Temp Diff Alarm], and it is delayed [Temp delay] seconds, the alarm of too large medium output and backflow is given. The function is disabled when [Temp Diff Alarm]= 0. (2) In the modification of [SV] or forced cooling, this fault is not processed in previous warming/cooling process.
Heating Failed	1. In case of an alarm, the machine runs normally. After the fault is eliminated, it is manually reset. 2. When the machine is in operation state, the alarm occurs if heating fault is detected. Please check whether the heater and its control loop have been disconnected, the loop media monitoring device is working properly and whether the heating limit time [heating limit time] settings are reasonable.
Cooling Failed	1. In case of an alarm, the machine runs normally. After the fault is eliminated, it is manually reset. When the machine is in operation state, the alarm occurs if cooling fault is detected. Please check whether the cooling valve and its control loop have been disconnected, the valve of cooling water inlet is open and whether the [cooling limit time] settings are reasonable.

Inlet sensor F	1. In case of an alarm, the machine runs normally. After the fault is eliminated, it is manually reset. 2. Detection starts when powered on, and the alarm is delayed 2 seconds. You must make sure whether the parameter [Sensor select] is consistent with the probe type. 3. The fault cannot be disabled.
Maint requested	Detect when powered on. Once the fault occurs, the unit cannot be turned on. Enter the commercial parameter and set the [unit maintenance] to 0 to eliminate the fault.
R HeatContactor	Detect when powered on. It doesn't affect the unit operation. When the cumulative number of heating contactor pull –in exceeds the set value of [electric heater maintenance (one hundred times)], the alarm is given. Enter the engineering parameter and set the [electric heater maintenance (one hundred times)] to 0 eliminate the fault.
R Oil Contactor	Detect when powered on. Only oil temperature machine has the fault, which doesn't affect the unit operation. Enter the engineering parameter and set the [maximum oil change time] to 0 to eliminate the fault.
R CoolContactor	Detect when powered on. It doesn't affect the unit operation. When the cumulative number of cooling contactor pull –in exceeds the set value of [cooling maintenance (one hundred times)], the alarm occurs. Enter the engineering parameter and set the [cooling maintenance (one hundred times)] to 0 eliminate the fault.
Water Press low	When the unit is powered on, start to detect the water flow switch signal. If the inlet water pressure is low, the alarm occurs. Refer the manufacturer parameter [processing of low inlet water pressure] for reset method. If you want to disable this detection method, do not connect the switch JP5_6 terminal
BoostP Overload	1. In case of an alarm, the machine runs normally. After the fault is eliminated, it is manually reset. 2. Start detection when the pump starts to rotate forwardly and check the current of the booster pump according to the inverse time lag. If you want to disable the onboard current module, simply set the [booster pump rated current] = 0

First Temp High	1. In case of an alarm, the heating stops and the cooling is open; the machine continues to run. It is automatically reset after the temperature is normal. 2. Detection in the unit operation state: (1) [PV] - [SV]> [First Temp High] and alarm delayed 2 seconds, when the temperature is down, it is automatically reset. If you want to disable it, set the [First Temp High] = 0.
First Temp Low	1. In case of an alarm, the heating stops and the cooling is stops; the machine continues to run. It is automatically reset after the temperature is normal. 2. Detection in the unit operation state: (1) [SV] - [PV]> [Temp Low Alarm] and alarm delayed 2 seconds, when the temperature is up, it is automatically reset. If you want to disable it, set the [First Temp Low] = 0.
SystemPress Low	1. In case of an alarm, the heating stops; the machine continues to run. It is automatically reset . 2. **Methods of detection:** ➢ **System press low switch input** JP5_6 (default normal open). Detection starts when powered on, and the alarm is delayed 2 seconds.
Level High	1. Available for the oil machine. 2. In case of an alarm, the machine stops. After the fault is eliminated, it is auto reset. 3. Detect when powered off.

13 Electrical Connection Diagram

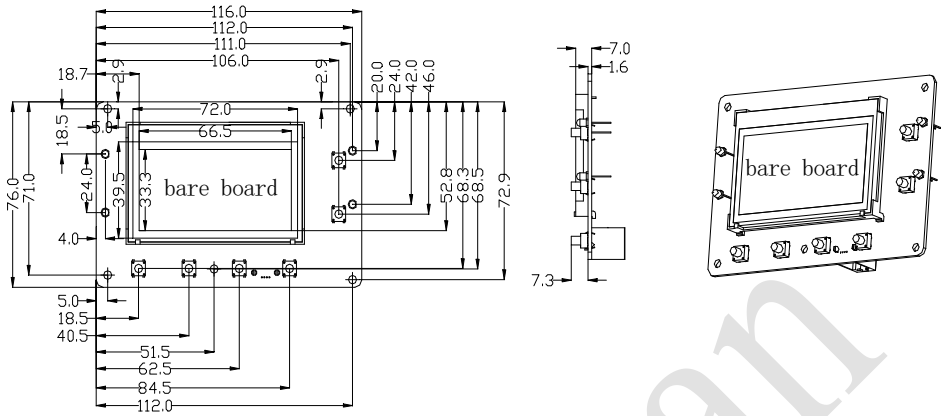


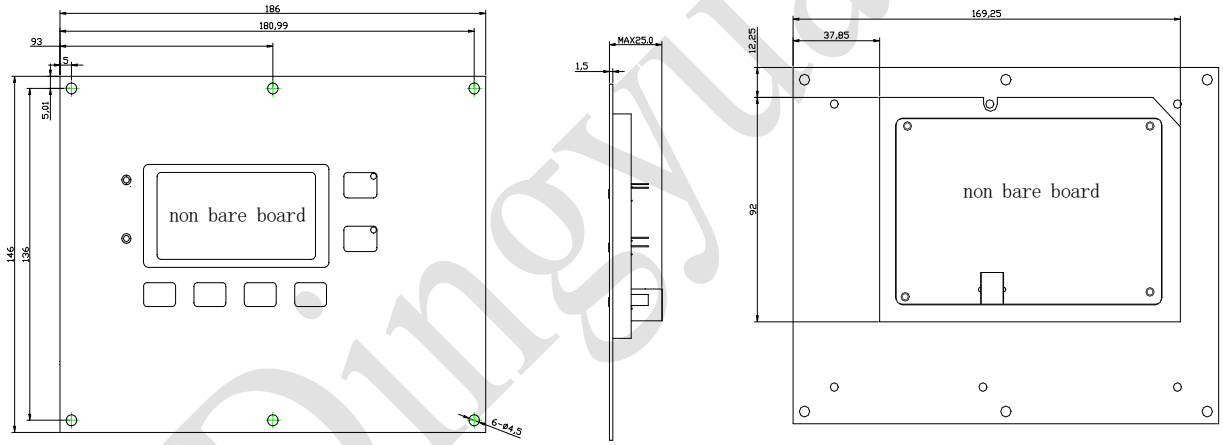
Mark1:The GW122B OR GW122C is optional accessories.if there is onley one cur choose GW122C,two curs choose GW122B

Mark2：Please use the insulated K type thermocouple 。

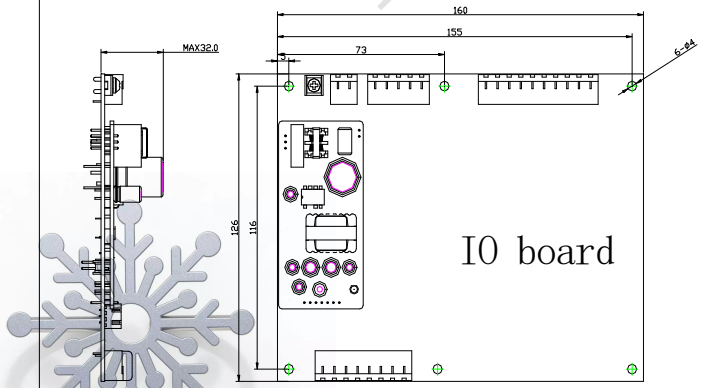
14 Installation Dimensions

SF506001. Installation Dimensions

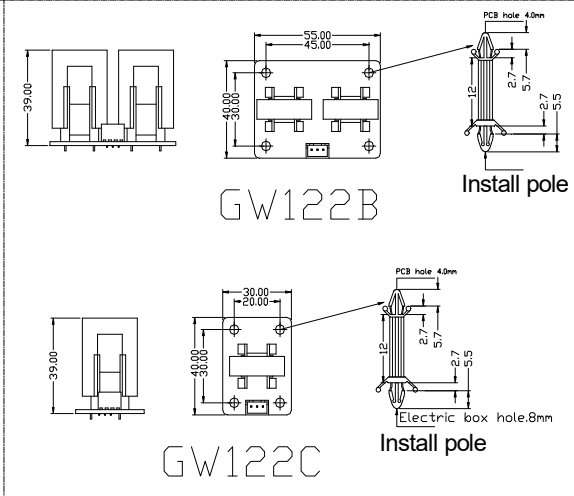




non bare board Installation Dimensions



I0 Installation Dimensions



15. The Guarantee of equipment

All equipment sold by **Dongguan Dingyuan Industrial Co,.Ltd** to _____. provide one year warranty. Within 1 year from the date of equipment opening day or shipping the equipment day(whatever occurs first.).

1. **Within this guarantee period, except the situation listed in the Sixth, Labor cost and spare parts cost are payment by the Supplier.**

2. Unscheduled maintenance during the guarantee period.

1) we will send technical personnel to check the system operation.

2) Arrange some necessary examined, checked, and routine maintenance.

3. Dongguan Dingyuan Industrial Co.,Ltd provide response-- 24 hours a day. Response content:

1) According to the customer's specific requirements, the professional engineer provide solutions.

2) Know the fault condition.

3) Methods to solve the problem.

4) Notify professional engineers to arrive at the site for repair time: Unless anything turns up, engineers rushed to the scene within 12 working hours of the city. Arrived to the scene within 48 working hours in other provinces. Mutual agreements the time in long-distance customers.

5) This service is for 24 hour, 7 days a week, 365 days a year.

4. **After commissioning, providing basic operation/ maintenance training for user maintenance personnel.**

5. **After this guarantee period, Dongguan Dingyuan Industrial Co.,Ltd promises that will provide a pay-needed maintenance service for life. A variety of service methods for users to choose.**

1) After the expiration of this guarantee period, the user's demand for spare parts is provided by the **Dongguan Dingyuan Industrial Co.,Ltd** in the establishment of the customer service center. The spot supply does not exceed two weeks of delivery; the futures delivery period does not exceed 3 months, and the arrival notice is available before arrival.

2) **Dongguan Dingyuan Industrial Co.,Ltd** are provided to the user at a preferential price of original spare parts, to ensure the accuracy and supporting for the products, and the spare parts purchased by the customer are guaranteed for 6 months.

3) Freely provide the technology information and provide information on new products of the **Dongguan Dingyuan Industrial Co.,Ltd.**

6. **The free guarantee during the guarantee period does not include the following:**

1) Failure caused by human accident or abuse due to improper use or inadvertent use;

2) The seller shall not be held liable for any problem in consequence of any Force Majeure incidents(Such as: typhoon, floods, fire, and earthquake, etc.）

3) Losses due to third party installation, wiring, repair and exchange;

4) Failure due to commissioning of not Dongguan Dingyuan Industrial Co.,Ltd engineer.

5) Due to the use of spare parts repair equipment not provided by our company, which causes equipment failure or equipment performance does not meet design specifications.

This guarantee shall become effective upon signing and sealing of the Dongguan Dingyuan Industrial Co.,Ltd.

Dongguan Dingyuan Industrial Co,. LTD

08.2023

15.